



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/779,586	02/09/2001	Toshiro Hayakawa	Q61222	6818

7590 12/19/2001
SUGHRUE, MION, ZINN, MACPEAK & SEAS, PLLC
2100 Pennsylvania Avenue, N.W.
Washington, DC 20037-3202

EXAMINER

HARMON, CECIL B

ART UNIT	PAPER NUMBER
----------	--------------

2881

DATE MAILED: 12/19/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/779,586

Applicant(s)

HAYAKAWA, TOSHIRO

Examiner

Cecil B. Harmon

Art Unit

2881

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-8 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-8 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____.
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3. 6) ☐ Other: .

DETAILED ACTION

Acknowledgement is made of the receipt of the priority document and the Information Disclosure Statement (IDS) on 03 April 2001.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

2. Claims 1-3, and 4-8 are rejected under 35 U.S.C. 102(e) as being anticipated by **Feld et al. [US6266357B1]**

3. In regards to claim 1, Feld disclose a laser apparatus **Fig. 3** which comprises a semiconductor laser element **34** which emit first laser light **32** and a first wavelength **36**; a surface emitting semiconductor element **34** which is excited by the first laser light **32** emit a second laser light **33**; a second wavelength **34** that is longer then the first **36**; an active layer **34** a first mirror **32** arranged on one side of the active layer **34**; a second mirror **33** is arranged outside the surface-emitting semiconductor element **34** so that the first and second mirrors **32** and **33** form a resonator **34** in which the second laser light **33** resonates; a modulator unit **30** which modulates the surface-emitting semiconductor element **34**.

4. In regards to claim 2 Feld et al. disclose in **Fig. 3** that the surface-emitting semiconductor element **34** has a pn-junction **35 and 36**, and the modulation unit **30** modulates the surface-emitting semiconductor element **34** by varying the applied voltage to the pn-junction **35 and 36**.
5. In regards to claim 3 Feld et al. disclose in **Fig. 3**, that the surface-emitting semiconductor element **34** has junction, **36 and 35** and the modulation unit **30** which modulates the surface-emitting semiconductor element **34** by varying the applied voltage to the Schottky pn-junction **35 and 36**.
6. In regards to claim 4, Feld et al. disclose in **Fig. 3** that the surface-emitting semiconductor element **34** comprises a structure **35** for controlling a spatial mode of the second laser light **33**.
7. In regards to claim 5, Feld et al. disclose in **Fig. 3**, that the structure has a pinhole **Fig. 2, 24** spatial filter being arranged at a light-exit end surface **33** of the surface-emitting semiconductor element **34** having a pinhole, **Fig. 2, 24** and allowing passage of the second laser light **33** emitted by the surface-emitting semiconductor element **34** through only the pinhole **Fig. 2, 24**.

8. In regards to claim 6, Feld et al disclose in **Fig. 3** that the first mirror **32** has a limited area arranged in parallel with a light exit -end surface **33** of the surface-emitting semiconductor element **34**.

9. In regards to claim 7, Feld disclose in Fig. 3, that the active layer **34** of the semiconductor apparatus **Fig. 3** is formed in only a limited area in a plane parallel to a light-exit end surface of the surface-emitting semiconductor element **34** which makes up the structure.

10. In regards to claim 8, Feld et al. disclose in **Fig. 2** that the structure **20** has a size which is, 0.1 to 10 times as large as a diameter to which the second laser light spreads to a position of the structure **20** for controlling the spatial mode of the second laser light.
See col. 4,lines 19-61.

Conclusion

11. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cecil B. Harmon whose telephone number is 703-306-0247. The examiner can normally be reached on 8am-4pm.

12. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Dzierzynski can be reached on 703-308-4822. The fax phone numbers for the organization where this application or proceeding is assigned are 703-308-7722 for regular communications and 703-308-0956 for After Final communications.

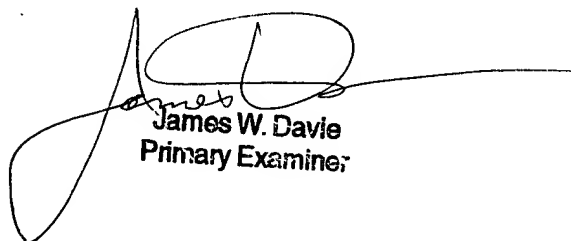
Application/Control Number: 09/779,586

Page 5

Art Unit: 2881

13. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0956.

CBH
December 16, 2001



James W. Davie
Primary Examiner